



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,230	12/14/2005	Roald H Pedersen	A5-1965	7134
27127	7590	12/12/2008		
HARTMAN & HARTMAN, P.C. 552 EAST 700 NORTH VALPARAISO, IN 46383			EXAMINER SPISICH, GEORGE D	
			ART UNIT	PAPER NUMBER
			3616	
			NOTIFICATION DATE	DELIVERY MODE
			12/12/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

domenica@hartmaniplaw.com  
gayle@hartmaniplaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,230	<b>Applicant(s)</b> PEDERSEN, ROALD H	
	<b>Examiner</b> GEORGE D. SPISICH	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 5, 13-24 and 31-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12 and 30 is/are rejected.
- 7) ☒ Claim(s) 25-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Species 1 (Figure 2) in the reply filed on May 28, 2008 is acknowledged. The traversal is on the ground(s) that the Species of the rear wheel is not patentably distinct from the front suspension species since the specification discloses the suspension is applicable to the rear wheel(s). This is not found persuasive because the difference in the steerability provided in the structure of the front suspension alone is enough for the suspensions to be considered different, while Examiner agrees that many similarities make them obvious variants, the details of the steering justify the species for the claimed structure. Furthermore, Examiner states that while it would be obvious to provide a similar suspension at the rear of the vehicle, Applicant has not shown that the vehicle is a four wheeled vehicle with a similar steering arrangement in the Figures so as to have further include a plurality of steered rear wheels.

The requirement is still deemed proper and is therefore made FINAL.

Claims 5,13-24 and 31-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Claim 5 includes details of non-elected Species 2 (Figure 3) and claims 13-24 and 31-36 include details of a duplicated yet not identical non-elected vehicle suspension for rear wheel(s). Applicant timely traversed the restriction (election) requirement in the reply filed on May 28, 2008.

Claims 1-4, 6-12 and 25-30 have been examined in this Office Action.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rear steered wheels (plurality) must be shown or the feature(s) canceled from the claim(s). While these claims have been withdrawn, a drawing objection is still proper in at least as the vehicle is not shown as a 4-wheeled vehicle but only as a 3-wheeled vehicle, and Examiner is uncertain how the arrangement would function as also a rear steered vehicle. Furthermore, claim 6 is not shown in the Figures. While it appears that the cardan joint is shown to connect the pendulum arm to the chassis, it is not shown or clear how a cardan joint would be used to connect the pendulum arm to the front wheel. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

Art Unit: 3616

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4,6 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is unclear. It is unclear what is intended to be claimed by the phrase "said coupling means is positioned approximately on a tilting pivot through the joint. Examiner is reading this as any two points would be able to be considered to be on a pivot (or plane) through each other.

Claim 6 is unclear. It is unclear how a cardan joint could connect the pendulum arm and the front wheel. Examiner has not given weight to this limitation since it would appear the stability of the wheel may be compromised when a cardan joint is used to connect the pendulum arm to the wheel in Figure 2.

Claim 30, line 4 is unclear. Applicant should claim limitation without the use of hyphens. Examiner is considering this limitation to be that the wheel at a minimum of

Art Unit: 3616

their variable track are the furthestmost part of the vehicle and do not extend beyond the sides of the vehicle.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/44008.

WO '008 discloses a vehicle comprising a chassis, a pair of front wheel (4) each having an axis of rotation, and a suspension assembly (135F) for connecting the front wheels to the chassis. The suspension assembly adapted to allow the front wheels to move transverse to their axes of rotation but in opposite directions in order to tilt the chassis.

The suspension assembly comprises a wheel orientation rod (177 or 254 at least) that is a steering rod coupled to at least a first of said front wheels, and means (connection) for pivotably coupling the wheel orientation rod to the chassis, the coupling means ensuring that a wheel orientation of the front wheel defined by the wheel orientation rod is "essentially" independent of movement of the first front wheel transverse to the axis of rotation thereof.

There is a pendulum arm (106F) coupling the first front wheel to the chassis.

Art Unit: 3616

The pendulum arm is coupled to the chassis at a joint (149) and the coupling means (connection at E1) is broadly considered to be positioned on a tilting pivot through the joint.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO '008 (previously discussed).

WO '008 does not specifically show that there is a cardan joint for coupling the pendulum arm to the chassis.

In the art of vehicle suspensions, various types of joints are well known and able to be incorporated, such as cardan joints.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension arm/chassis joint shown in WO '008 by providing a cardan joint, as any joint would have been an obvious design choice by one of ordinary skill in the art for the improved movement a cardan joint provides.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '008 in view of Smyers (USPN 4,546,997).

Art Unit: 3616

WO '008 has been previously discussed, however, although it is well known to adjust a suspension both automatically (based on forward speed) and manually, WO '008 does not specifically disclose this adjustment.

Smyers (see at least col. 19, lines 33-56) discloses the automatic (based on forward speed) and manual adjustment of the suspension to alter the force acting against the movement of the wheels and against tilting of the chassis. This adjustment allows for the adaptability of the suspension and improved performance based on vehicle speed. Any device that imparts a force is broadly considered a motor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension arrangement of WO '008 so as to have speed adjusted and manually adjust forces as taught by Smyers to act against tilting of the chassis when desired for improved performance.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '008 in view of Smyers in further view of Vidal (USPN 5,611,555).

WO '008 in view of Smyers has been previously discussed, but does not specifically show a pivotable balance beam coupled to the front wheels.

Vidal discloses a suspension arrangement having a pivotable balance beam (7) that allows for independent stable movement of first and second wheels. The balance beam is lockable so as to prevent movement.



It would have been obvious to modify the suspension of WO '008 in view of Smyers so as to have a pivotable and lockable balance as taught by Vidal to provide stable independent movement of each wheel.

### ***Allowable Subject Matter***

Claims 25-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art does not show in addition to the claimed subject matter, the front wheels having a variable track width. This limitation is considered to be a sustained travel of the vehicle, each at a different defined width spacing between the wheels that is maintained, and not a random non-sustained movement of the wheels in the width direction.

Claim 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references show various tilting wheel suspension that relate to Applicant's invention: Hayashi (USPN 6,367,824), Bourne Jr. (USPN 4,624,469), Townsend (USPN 4,351,410), Trautwein (USPN 4,088,199), Patin (USPN 4,974,863), Fujita et al. (USPN 4,632,413), Soibes (USPN 4,375,293), Prince (USPN

Art Unit: 3616

4,887,829), Levavi (USPN 4,717,164), Trautwein (USPN 4,020,914), Boughers (USPN 4,003,443), Hayahi (USPN 6,817,617), McMullen (USPN 4,740,004), FR 2616617, EP 1 155 950.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE D. SPISICH whose telephone number is (571)272-6676. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on (571) 272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/  
Supervisory Patent Examiner, Art Unit 3616  
/George D. Spisich/  
Examiner, Art Unit 3616  
December 6, 2008